PO Job Risk Assessment

Name(s) of Risk Team Members: W. Guryn, D. Lynn, R. Soja, R. Gill (facilitator)	**Point Value → Parameter ↓**	**1**	**2**	**3**	**4**	**5**
Job Title: Solid state detector development and characterization **Job Number or Job Identifier: PO-JRA-022**	**Frequency (B)**	**≤once/year**	**≤once/month**	**≤once/week**	**≤once/shift**	**>once/shift**
Job Description: Work with solid state detectors, primarily Silicon, which includes detector development, testing, and mounting. Testing often includes the use of radioactive sources.	**Severity (C)**	**First Aid Only**	**Medical Treatment**	**Lost Time**	**Partial Disability**	**Death or Permanent Disability**
Training and Procedure List (Optional):	**Likelihood (D)**	**Extremely Unlikely**	**Unlikely**	**Possible**	**Probable**	**Multiple**
Rev. #: **0** Date: **March 29, 2005**						
Stressors (if applicable, please list all): Fragile detectors, cramped work spaces for some assembly.		**Reason for Revision (if applicable):**			**Comments:**	

				Before Additional Controls						After Additional Controls					
Job Step / Task	**Hazard**	**Control(s)**	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**Control(s) Added to Reduce Risk**	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**% Risk Reduction**
Mounting detector on fixture or substrate	Use of epoxies or glues.	See PO-JRA-017 Routine chemical use	N	1	4	1	1	4								
	Electronic soldering.	See PO-JRA-009 Electronic shop work	N	1	4	1	1	4								
	Hand tool use	See PO-JRA-016	N	1	4	1	2	8								

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			Before Additional Controls						After Additional Controls					
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Mounting detector on fixture or substrate (cont'd)	Handling Beryllium substrates, where applicable.	See PO-JRA-013 Work with hazardous materials	N	1	4	1	1	4								
Detector and electronic powering (low voltage and current)	Electrical shock	Work planning, procedures, training, de-energize supply when connecting, use of proper cables and connectors, NRTL rated equipment	N	1	5	1	1	5								
	Reflex injury from electrical shock	Work planning, procedures, training, de-energize supply when connecting, use of proper cables and connectors, NRTL rated equipment, condition of work area	N	1	5	2	1	10								
Troubleshooting detector	Electrical shock	Work planning, procedures, training, NRTL rated equipment, rated meters and scopes	N	1	5	2	1	10								
	Reflex injury from electrical shock	Work planning, procedures, training, de-energize supply when connecting, use of proper cables and connectors, NRTL rated equipment, rated meters and scopes, condition of work area	N	1	5	2	1	10								
Characterization or calibration of the detector	Radioactive source use	See PO-JRA-020	N	1	2	1	1	2								

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Job Step / Task	**Hazard**	**Control(s)**	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**Control(s) Added to Reduce Risk**	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**% Risk Reduction**
Characterization or calibration of the detector (cont'd)	Vacuum system operation	See PO-JRA-023	N	1	2	1	1	2								
	Use of Class 2, 3B lasers and laser diodes	See PO-JRA-015	N	1	4	1	1	4								
Survey and alignment	Being caught in or cut by tools and objects	Work planning, procedures, training, condition of workspace, use of helper	Y	2	4	1	3	24								
	Back strain or injury	Work planning, procedures, training, condition of workspace, use of helper	Y	2	4	1	3	24								
Transporting detectors or assemblies to other locations	Falls to same or lower levels while carrying detector boxes	Work planning, procedures, training, condition of walking surfaces, use of helper, on-site transportation subject area	Y	2	4	1	2	16								
Further Description of Controls Added to Reduce Risk:																

***Risk:**	**0 to 20 Negligible**	**21 to 40 Acceptable**	**41 to 60 Moderate**	**61 to 80 Substantial**	**81 or greater Intolerable**